Homework/Extension
Step 9: Fractions to Decimals 2

National Curriculum Objectives:

Mathematics Year 6: (6F6) Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 3/8]
Mathematics Year 6: (6F9c) Use written division methods in cases where the answer has up to two decimal places
Mathematics Year 6: (6F10) Solve problems which require answers to be rounded to specified degrees of accuracy

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)
Developing Identify statements which are incorrect when converting fractions to decimals by dividing the numerator by the denominator. Using decimals up to 2 decimal places.
Expected Identify statements which are incorrect when converting fractions to decimals by dividing the numerator by the denominator. Includes decimals up to 3 decimal places. Some use of improper fraction included.
Greater Depth Identify statements which are incorrect and order decimals when converting fractions to decimals by dividing the numerator by the denominator. Includes decimals up to 3 decimal places. Mixed numbers or improper fractions included in every question.

Questions 2, 5 and 8 (Varied Fluency)
Developing Match the fraction to the correct calculation and decimal when converting fractions to decimals by dividing the numerator by the denominator. Using decimals up to 2 decimal places.
Expected Match the fraction to the correct calculation and decimal when converting fractions to decimals by dividing the numerator by the denominator. Includes decimals up to 3 decimal places. Some use of improper fraction included.
Greater Depth Match the fraction to the correct calculation and calculate the decimal when converting fractions to decimals by dividing the numerator by the denominator. Includes decimals up to 3 decimal places. Mixed numbers or improper fractions included in every question.

Questions 3, 6 and 9 (Reasoning and Problem Solving)
Developing Decide which calculation is correct and explain why when converting fractions to decimals by dividing the numerator by the denominator. Using decimals up to 2 decimal places.
Expected Decide which calculation is correct and explain why when converting fractions to decimals by dividing the numerator by the denominator. Includes decimals up to 3 decimal places. Some use of improper fraction included.
Greater Depth Decide which calculation is correct and explain why when converting fractions to decimals by dividing the numerator by the denominator. Includes decimals up to 3 decimal places. Mixed numbers or improper fractions included in every question.

More Year 6 Decimals resources.

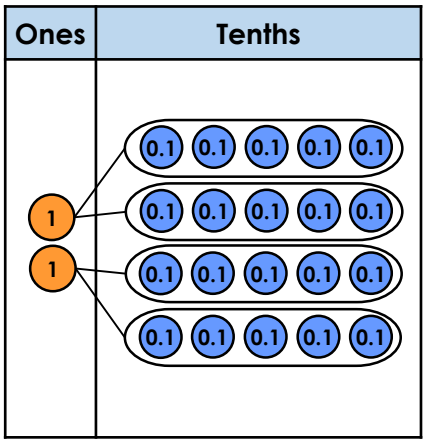
Did you like this resource? Don't forget to review it on our website.

Fractions to Decimals 2

1. Circle the incorrect statement below by converting the fractions to decimals using the short division method.

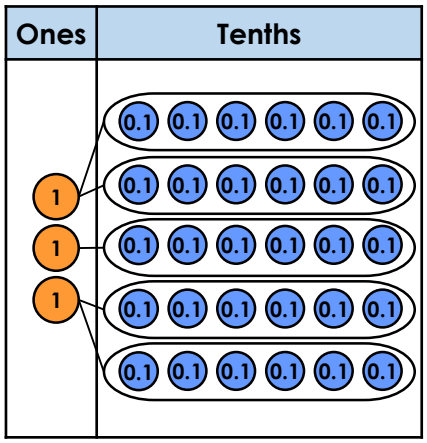
A. $\frac{2}{4}$ = 0.5

$4 \overline{)\ 2 \cdot 0}$



B. $\frac{3}{5}$ = 0.5

$5 \overline{)\ 3 \cdot 0}$



D

VF
HW/Ext

2. Match the fraction to the correct calculation and corresponding decimal.

A.	$\frac{2}{8}$	$8 \overline{)\ 6 \cdot 0\ \ 0}$	0.8
B.	$\frac{6}{8}$	$5 \overline{)\ 4 \cdot 0\ \ 0}$	0.25
C.	$\frac{4}{5}$	$8 \overline{)\ 2 \cdot 0\ \ 0}$	0.75

D

VF
HW/Ext

3. Paula and Lucas are converting $\frac{2}{5}$ to a decimal using short division.

Paula

I did the calculation

$$5 \overline{)\ 2 \cdot {}^{2}0}\ \ 0 \cdot 4$$

Lucas

I did the calculation

$$2 \overline{)\ 5 \cdot {}^{1}0}\ \ 2 \cdot 5$$

Who is correct?
Explain how you know.

D

RPS
HW/Ext

Fractions to Decimals 2

4. Circle the incorrect statement below by converting the fractions to decimals using the short division method.

A. $\frac{7}{8} = 0.78$

$$8 \overline{)\,7 \cdot 0\ 0\ 0}$$

B. $\frac{3}{4} = 0.75$

$$4 \overline{)\,3 \cdot 0\ 0\ 0}$$

C. $\frac{3}{5} = 0.6$

$$5 \overline{)\,3 \cdot 0\ 0\ 0}$$

D. $\frac{6}{5} = 1.2$

$$5 \overline{)\,6 \cdot 0\ 0\ 0}$$

E

VF
HW/Ext

5. Match the fraction to the correct calculation and corresponding decimal.

A.	$\frac{7}{5}$	2 ÷ 5	0.375
B.	$\frac{2}{5}$	3 ÷ 8	1.4
C.	$\frac{3}{8}$	7 ÷ 5	0.4

E

VF
HW/Ext

6. Steph and Sean are converting $\frac{5}{8}$ to a decimal using short division.

Steph: I did the calculation 5 ÷ 8 = 0.625

Sean: I did the calculation 8 ÷ 5 = 1.6

Who is correct?
Explain how you know.

E

RPS
HW/Ext

Fractions to Decimals 2

7. Circle the incorrect statement below by converting the fractions to decimals using the short division method. Calculate answers to 3 decimal places.

A. $1\frac{5}{6}$ = 1.833

B. $\frac{9}{8}$ = 0.889

C. $2\frac{7}{8}$ = 2.875

D. $\frac{7}{3}$ = 2.333

Order the decimals in ascending order.

GD

VF
HW/Ext

8. Match the fraction to the correct calculation and complete the corresponding decimal equivalent.

A. $\frac{13}{4}$ | 11 ÷ 8

B. $1\frac{3}{8}$ | 13 ÷ 8

C. $1\frac{5}{8}$ | 13 ÷ 4

GD

VF
HW/Ext

9. Lucy and Josh are converting $2\frac{6}{8}$ to a decimal using short division.

Lucy

I did the calculation 6 ÷ 8 = 0.75 then added 2.

Josh

I did the calculation 22 ÷ 8 = 2.75

Who is correct?
Explain how you know.

GD

RPS
HW/Ext

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Developing

1. B is incorrect as 3 ÷ 5 = 0.6. A is correct.
2. A = 2 ÷ 8 = 0.25; B = 6 ÷ 8 = 0.75; C = 4 ÷ 5 = 0.8
3. Paula is correct. Lucas has calculated five halves rather than two fifths.

Expected

4. A is incorrect as 7 ÷ 8 = 0.875. B, C and D are correct.
5. A = 7 ÷ 5 = 1.4; B = 2 ÷ 5 = 0.4; C = 3 ÷ 8 = 0.375
6. Steph is correct. Sean is incorrect as he has calculated eight fifths rather than five eighths.

Greater Depth

7. B is incorrect as 9 ÷ 8 = 1.125. A, C and D are true.
Order: B, A, D, C
8. A = 13 ÷ 4 = 3.25; B = 11 ÷ 8 = 1.375; C = 13 ÷ 8 = 1.625
9. They are both correct. Lucy partitioned her fraction to calculate the decimal equivalent. Josh converted his into an improper fraction and then divided by 8.